

GROWING OUR FUTURE

A PLAN FOR URBAN AND COMMUNITY FORESTRY

INTRODUCTION

What is Urban and Community Forestry?

If you can look out your window and see a tree, you are living within the urban and community forest. The trees that grow along our streets, in parks and commons, and in our backyards comprise the backbone of the natural landscape of all our communities, rural and urban. But there's more to a forest than the trees. The plants and soil that are part of this habitat make up an ecological system that supports wildlife, a clean water supply and a healthy home for humans. The urban and community forest also moderates the effects of heat, sound and air pollution, and contributes to the social and economic vitality of our communities.

Urban forestry looks beyond the scale of an individual tree to the whole system. From an airplane, most of our Massachusetts communities look like forests with buildings and roads in them. Such is the urban forest. Management of this resource borrows concepts from traditional forestry and works to produce the highest quality product – a robust canopy of trees that produces multiple benefits for its 'users', the residents of Massachusetts communities. Unlike natural forests, community forests must be deliberately designed into our growing towns and cities, and carefully planned so that trees thrive and function as they were intended to in the landscape. To achieve its highest value, urban and community forestry relies heavily on human resources to set public priorities, advocate for broad support and ensure sustainability.

Urban and community forestry includes planting and maintaining trees, recycling wood products from removed trees, teaching young people about nature, uniting neighbors to establish a community garden, creating a local land use plan and participating in an Arbor Day celebration with businesses. These activities bring diverse members of our communities together, strengthening our bond to the landscape and improving the quality of our environment and the quality of life for the whole community.

Why does Massachusetts Need a Plan for Urban and Community Forestry?

If you don't know where you are going, then any road will get you there. But we do know where we want to go. We want every Massachusetts town or city to have healthy community trees and forests that contribute to economic stability, environmental quality and social welfare. We want Massachusetts to be a model for urban and community forestry around the country.

To realize this, we need a strategic plan that outlines the paths we will take, the results we hope to reach and the actions we will take to reach them. Everyone in Massachusetts – individuals and organizations – who care about trees, forests, towns or cities should read this plan and use it as a guide in working together to help grow urban and community forestry in all of our villages, towns and cities.

How will this plan be used?

This plan will be used to guide the future activities of the Massachusetts Department of Environmental Management's (DEM) Urban and Community Forestry Program in grantmaking, technical assistance, public policy and training activities in cooperation with communities around the commonwealth. The Massachusetts Community Forestry Council (MCFC) will use this plan to guide educational, outreach and advocacy efforts for urban and community forestry in the state. The plan will also assist the USDA Forest Service in evaluating the strategic direction of Massachusetts' Urban and Community Forestry Program in accordance with the guidelines of the National Urban and Community Forestry Program.

We hope that you, as public leaders, green industry professionals, tree activists, environmental organizations and private businesses, will also use this plan to help guide your work to "Grow our Future" and improve Massachusetts' urban and community forests.

Where Are We Now?

A Brief History of Urban and Community Forestry in Massachusetts

Massachusetts has a rich heritage of shade tree planting and protection. European settlers found that their early deforestation for pastureland exposed their growing towns to harsh sun and wind. So in 1646, the first community shade tree planting in the "New World" was held in Massachusetts. Beginning in 1756, one of these elm trees became a rallying point in the course of the revolt against British taxation and was celebrated as the Liberty Tree, an enduring symbol of freedom. Liberty Trees were then planted throughout the country to demonstrate solidarity in pursuit of liberty.

Other prominent trees in Waltham, the Waverly Oaks, contributed to the birth of the land conservation movement. The grove of 23 massive white oaks was inspirational to poets and artists in the late 19th century, including James Russell Lowell and Winslow Homer. Charles Elliot, a protégé of Frederick Law Olmsted, proposed the formation of an "association for the purpose of holding and protecting for the public benefit pieces of ground like that covered by the Waverly Oaks." His efforts led to the establishment of the Trustees of Reservations in 1891, the nation's first private, statewide conservation group,

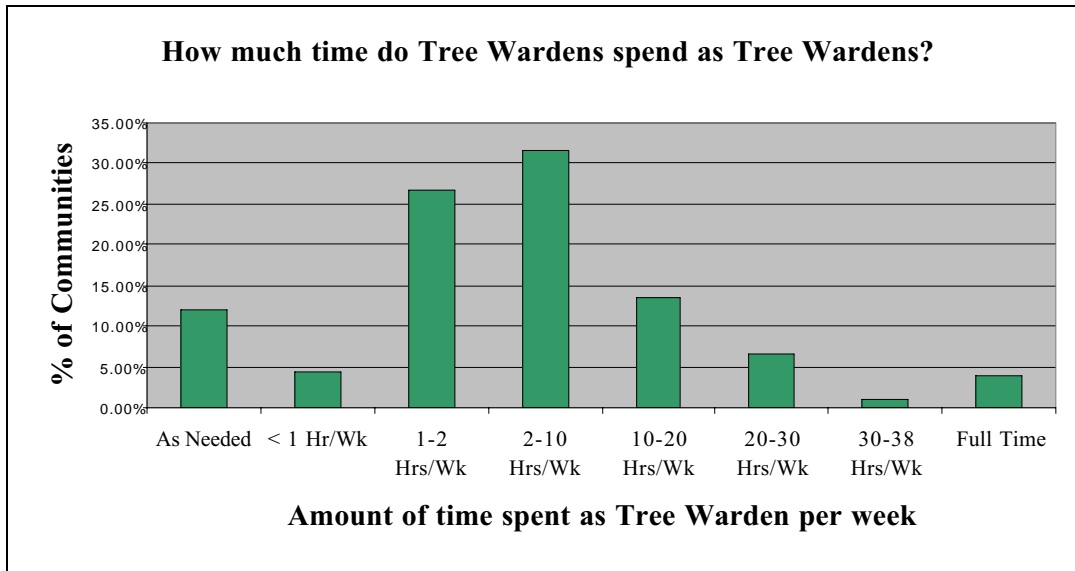
and later to the establishment of the Metropolitan District Commission.

During this early era of land conservation, the Commonwealth passed legislation in 1882 enabling Massachusetts' communities to acquire, protect and manage forestlands as town-owned resources. This town forest movement brought together conservationists and foresters in response to concerns over low timber supplies and drinking water quality. Town forestland acquisition peaked in the 1920's, and then gradually declined until the 1960's when suburban sprawl and the environmental movement began contributing to a second wave of town forest preservation. The current trend has been toward more active, long-term management of these resources for multiple environmental and social benefits.

In 1899, the Legislature passed the Acts of 1899 Chapter 330, which mandated the appointment of a tree warden to "have care and control of all public shade trees in the town." Massachusetts General Law Chapter 87 was later passed, assigning duties to the tree warden and protecting public shade trees. The Massachusetts Tree Wardens' and Foresters' Association was formed in 1913 to promote the scientific knowledge of trees among those engaged in arboriculture. Nearly a century later, the historical network of tree wardens was compromised by budget cuts due to Proposition 2 1/2, which limits the annual increase of town budgets to 2 1/2 %. This, combined with the economic downturn of the 1980's, resulted in dramatic budget reductions to municipal park and tree department budgets. Often, trees have become overlooked as a luxury item rather than an environmental necessity in local budgets, taking a seat behind the more obvious demands of schools, crime and grime. Tree wardens serve in nearly all of Massachusetts' 351 cities and towns managing public shade trees within public works, highway or park departments. Tree wardens may be elected or appointed, serve as staff or volunteers and range from arboriculture professionals to administrators.

Some of the Current Challenges and Conditions

Diminished urban forestry staffing and resources continue into the new millennium. Currently, only 5% of Massachusetts' communities support full-time tree wardens. Approximately 75% of communities have tree wardens who spend less than 10 hours per week on public shade trees. Inadequate funding for local forestry programs has made it nearly impossible to properly maintain tree health in many communities, and this neglect often results in crisis situations. Thirty-one percent of Massachusetts' communities spend less than \$1 per capita per year on urban forestry. Dead and unhealthy urban trees can become hazardous and threaten public safety. Typically, managers are so busy responding to emergencies and constituent requests that their ability to comprehensively manage their community forest resources is seriously hindered.



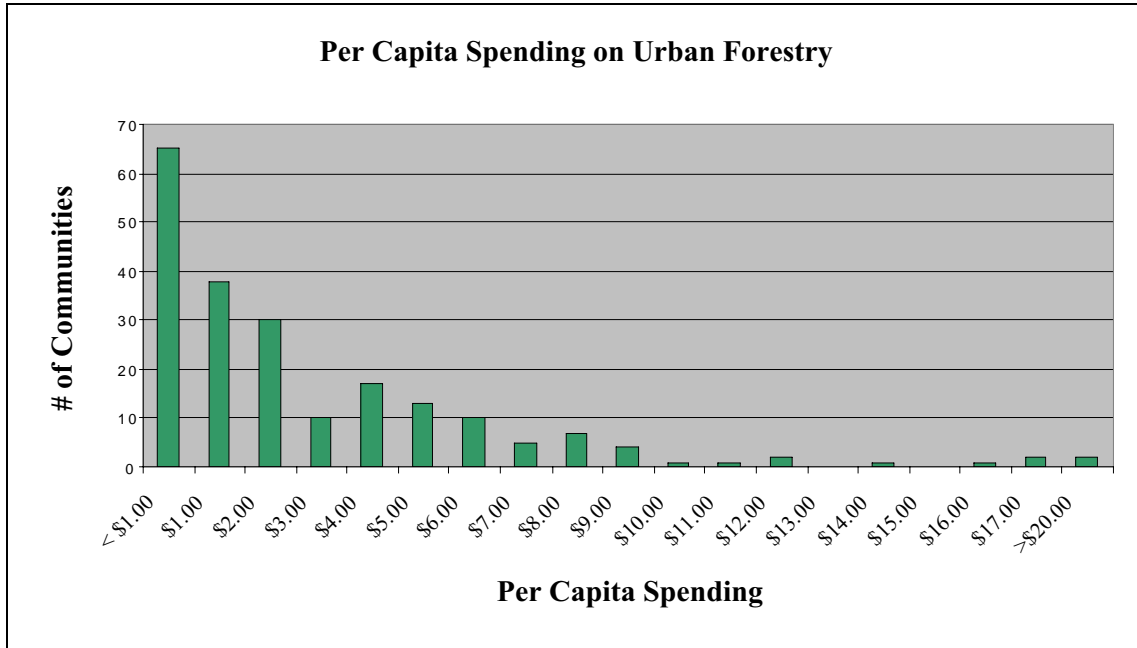
The urban and community forests remain a significant public resource that requires and deserves substantial investment. Community tree surveys and inventories demonstrate the value and needs of this resource, and provide local decision-makers with the knowledge and tools to comprehensively manage their urban and community forests. Such assessments can often spark municipal investment in and stewardship of community trees. For example:

- Through a town-wide street tree survey, the Town of Bedford found that its 11,400 public street trees have a total value of \$14.3 million. The community chose to allocate \$25,000 for tree care and hazardous tree removal.
- The City of Peabody quantified the value of its public street trees and similarly appropriated \$25,000 for tree planting and hired a full-time forest staff person.
- The Town of Dalton conducted a partial inventory and discovered that they had over 1,800 public street trees worth over \$5.5 million. This led to a \$15,000 appropriation for the management of these trees.

Recent community tree surveys around the state have also revealed a number of important trends.

- Massachusetts' urban forests are overwhelmingly dominated by Norway maples, which comprise as much as 60-70% of all trees in some municipalities. This invasive species interferes with the complex biodiversity of natural communities.
- Typically, at least 40% of all street trees are in fair to poor condition. This suggests that there will be a significant tree loss over the next decade, unless there is aggressive and consistent tree management and replacement.
- Less than 5% of all public street trees comprise the largest size class (>32" in diameter), which provide so much community character.
- Tree removals significantly outpace new tree plantings in most communities, foreboding a loss in community tree cover.
- Twenty-five percent of Massachusetts' communities report spending at least \$5

per capita on urban forestry and some spend more than \$15 per capita.



Sprawl is also a major threat to the forest canopy throughout the commonwealth. Residential and business development in communities close to urban centers, such as Boston and Worcester, result in a dramatic loss of canopy. Nearly 16,000 acres of open space are lost to development each year. When local officials plan improvements to roadways, sewer lines and buildings, they are often unaware of the broad public values and benefits associated with community trees and forests and fail to preserve them, needlessly sacrificing green infrastructure in favor of gray infrastructure.

Some Current Trends and Opportunities

Despite these significant challenges to urban and community forestry programs across the commonwealth, encouraging trends are apparent:

- Tree boards are assuming a new prominence throughout the commonwealth. A few communities now have officially appointed tree boards, some growing from ad hoc committees created to address a specific tree-related issue. Currently there are over 60 citizen tree boards (or equivalent groups) in Massachusetts and another 11 communities are currently forming such boards. Tree boards support the work of tree wardens, organize fund-raising and educational activities, and in some cases, provide leadership for a municipal tree program.
- Over 70 of 351 communities in Massachusetts are recognized as Tree City USA's. This is one of the largest proportions of Tree City USA communities in the country.
- The private sector has steadily supported community tree planting through

- partnerships with the Mass ReLeaf Fund, contributing about \$120,000 in recent years.
- Mass ReLeaf tree-planting grants to communities have also been supported by state capital funds and Mass Highway surface transportation enhancement funds. These combined resources brought Mass ReLeaf planting grants to 120 communities in the year 2000.
 - Federal funding for urban and community forestry in Massachusetts has increased modestly. Special federal initiatives funded through the USDA Forest Service, the USDA Natural Resource Conservation Service and the Environmental Protection Agency have brought additional resources to targeted urban communities through initiatives like the Greater Boston Urban Resources Partnership.

Some communities are initiating innovative approaches to urban and community forestry including comprehensive regional assessments, youth employment programs, citizen training programs and community planting programs to maximize local resources, harness volunteer energy and train future stewards.

On the state level, the Department of Environmental Management (DEM) began implementing the Urban and Community Forestry Program with guidance and financial support from the USDA Forest Service in 1990. In 1995, DEM began a grants program to support communities in their efforts to build long-term support for their community forest resources. In addition, state and private funding is channeled to support tree planting through the Mass ReLeaf fund, a state trust fund established by the legislature in 1989.

The Massachusetts Urban and Community Forestry Program offers the following grants:

- Urban Forest Planning and Education Grants provide support to communities to assess urban forest resources, develop management strategies and educate professionals and residents in order to increase long-term local capacity for sustainable urban and community forestry.
- Heritage Tree Grants provide funds for professional care of large and historically or culturally important trees in public landscapes.
- The Mass ReLeaf Fund offers statewide competitive tree-planting grants when public or private funding becomes available. Partnerships with businesses, such as the Mass Memorial Tree Program, provide on-going support to targeted communities.

Finally, Massachusetts enjoys a high degree of professionalism among arborists, the hands-on caretakers of the urban forest. The Massachusetts Arborists Association in partnership with the University of Massachusetts at Amherst, coordinates a training and certification program for arborists. Some 700 arborists hold the Massachusetts Certified Arborist credential. More are certified, additionally or exclusively, by the International Society of Arboriculture. The Massachusetts Tree Wardens' and Foresters' Association has recently launched a professional development series for municipal arborists and tree wardens.

Who is Involved in Urban and Community Forestry

Partners are the Roots of Massachusetts' Urban and Community Forestry

Numerous organizations and individuals act interdependently to enhance, manage and advocate for our urban and community forests in Massachusetts.

- **The Massachusetts Department of Environmental Management's Urban and Community Forestry Program** provides assistance to municipalities to build support for the long-term management and protection of public trees and forests by providing grants, technical assistance, training and recognition awards to communities of all sizes throughout Massachusetts. The program also provides guidance on urban forestry policy issues at the state level. It is a part of the Department of Environmental Management within the Executive Office of Environmental Affairs.
- **The Massachusetts Community Forestry Council** is a non-profit coalition of public agencies, citizen's groups and professional groups working to educate and involve the citizens of Massachusetts in urban and community forestry activities.
- **The USDA Forest Service (Northeast Area), Urban and Community Forestry Program** provides funds, technical assistance, technical transfer, and overall program guidance to Massachusetts and other states.
- **The National Arbor Day Foundation** provides technical information through Tree City USA Bulletins, and oversees the national Tree City USA awards and the Arbor Day poster contest for fifth-grade students. State natural resource agencies, like DEM, administer these programs.
- **The Northeast Center for Urban and Community Forestry** facilitates and supports new and existing research, provides assistance and coordinates the exchange of information among urban and community forestry practitioners in the New England and New York region.
- **The Massachusetts Tree Wardens' and Foresters' Association** is the professional association that represents the tree wardens who serve in each municipality to manage public shade trees.
- **The Massachusetts Department of Environmental Management's Forest Health Program** monitors forests for insect and disease outbreaks, educates professionals and homeowners, and maintains tree health throughout the state forest and park system.
- **The Massachusetts Department of Environmental Management's Historic Landscape Preservation Grants Program** supports the preservation of historic community landscapes.
- **Other federal and state agencies** have responsibility for stewardship of land in Massachusetts, for setting regulations, which impact our community trees and forests, or for providing technical and financial resources to help improve our urban and community forests.
- **Colleges and universities** provide educational opportunities and train urban forestry

professionals. Among them, The University of Massachusetts at Amherst offers a Bachelor of Science degree in arboriculture and advanced degrees in urban forestry. Such schools as the Stockbridge School and North Shore Community College award Associate Degrees in arboriculture.

- **Vocational high schools** introduce students to green industry careers through programs like the horticulture track at Minuteman Technical School and Essex Agricultural High School and the arboriculture track at the Bristol County Agricultural School.
- **Green industry professionals**, including arborists, landscape architects, horticulturists and others, design, manage, enhance and maintain trees and forests in our towns and cities.
- **The Garden Club Federation of Massachusetts** is a network of local garden clubs that teach the importance of trees to young people through events and imaginary characters such as the Treeture. Garden clubs also adopt public green spaces and advocate for trees and gardens in communities across the commonwealth.
- **Botanic gardens and arboreta** provide collections and gardens for research and education. They also offer classes and resources for citizen foresters, home gardeners, professionals and the media.
- **Citizen activists** are the caring and committed individuals in each town who volunteer their time to protect, improve and sustain our urban and community forests.
- **Public leaders** are the individuals who make the decisions and implement the programs and policies at the state and local level, which impact the economic and environmental health of our local communities.
- **City and regional** non-profit groups work to preserve and encourage investments in community natural resources.
- **Public boards and commissions** like Planning Boards and Zoning Boards of Appeal, Regional Planning Commissions and others make local land use decisions that affect urban community forestry.

Where Are We Going?

Developing a Plan for Urban and Community Forestry

Listening to a Growing Constituency

Public involvement in urban and community forestry is growing across the country, and an effective plan cannot be created by a few individuals in an office somewhere. A plan for urban and community forestry must be founded upon broad input from diverse stakeholders across the state – rural and urban residents, detractors and supporters, activists and practitioners.

From November 2000 through February 2001, the Department of Environmental Management (DEM) Urban and Community Forestry Program and the Massachusetts

Community Forestry Council (MCFC) partnered with stakeholder groups (see Appendix A) to sponsor a series of seven "listening sessions" throughout the commonwealth. They held sessions from downtown Boston to the Berkshires, from Worcester to Fall River. Participants came from community groups, conservation organizations, professional associations, state government, town governments and other sources to articulate the results that need to be achieved to improve urban and community forestry in Massachusetts, and to contribute towards a working plan of how to achieve these results. Input from these meetings served as the foundation for this document.

Visions for Urban and Community Forestry

Stakeholders who attended these urban and community forestry "listening sessions" first brainstormed some possible visions for Massachusetts' urban and community forests in the year 2020. The statements below represent some common visions, as well as some of the diversity of what different stakeholders hope for the future:

Adults, youth and citizen groups are more knowledgeable and more involved in the management and care of the urban and community forest.

- Urban children are comfortable in a forested environment.
- People realize that a healthy urban and community forest is not just the government's job and are actively involved as stewards.
- The public respects and understands the value of the urban and community forest.
- Every town is a Tree City USA.

We have created a new approach to design, building and landscaping.

- The conflict between utilities and trees is resolved. When possible, utility lines have been buried and there is no more inappropriate planting underneath wires.
- Public transportation, including mass transit and bike paths, is popular and plentiful. Designers have created pedestrian-based spaces, rather than car-based corridors.
- There is the same amount of green or more than the present.
- Tree removal is balanced with planting.
- State laws regulate how much greenery can be cut when establishing a development and a percentage of land in a newly developed area is put aside as green space.

Community forests support wildlife habitat.

- Trees create habitat for migratory birds and indigenous wildlife.
- Forests support hunting and outdoor recreation.

Community trees are well maintained and support native, functioning ecosystems.

- Exotic plant species are controlled.
- Dying urban trees are removed promptly and replaced.

- **A proper environment for survival is provided. Planting strips are wider.**
- **More research is conducted in developing trees resistant to disease and new varieties are available. This information is made available to municipal tree wardens and advocates.**
- **Maintaining public trees and landscapes is a priority with agencies and town governments.**
- **Plantings contribute to biodiversity.**

Urban and community forestry Programs are consistently funded on the town, state and federal level.

- **A percentage of a municipality's tax base is given to Parks and Forestry Departments.**
- **There is a line item in the state budget for urban and community forestry.**

Personnel are regarded as professionals and are given educational opportunities.

- **There is a certification program for Department of Public Works personnel and independent landscapers.**
- **Education regarding the urban and community forest is provided for utility personnel.**

Growing our Future!

A Five-Year Strategic Plan For Urban and Community Forestry

Through facilitated discussions, stakeholders at the "listening sessions" identified the greatest needs and suggested key actions in the areas of resource management, community involvement, funding, policy and education. The recommendations from all of the sessions were compiled and summarized in the following plan as results and suggested actions that need to be achieved to improve urban and community forestry in Massachusetts. The consensus reached was that:

Urban and Community Forestry in Massachusetts Will Thrive When:

- I. Organizations and agencies are better stewards of the urban and community forest.
- II. All urban and community forestry programs are fully funded.
- III. All residents and leaders understand and appreciate urban and community forests.
- IV. Tree canopy cover is increased, improving ecosystem integrity.
- V. Urban and community trees and forests are well managed.

Each of these main categories is further broken down into more detailed desired results. Suggested actions that may help lead to these results are listed in green. It is important to note that this process generated the full range of results that need to be achieved to improve urban and community forestry and a host of suggested actions to achieve these results. It may not be realistic to think that any one organization or agency could implement all of these actions or achieve this within five years. This will have to be a collaborative effort of all those working to grow the future of urban and community forestry in Massachusetts.

What Needs to be Achieved to improve Urban and Community Forestry in Massachusetts:

I. Organizations and agencies are better stewards of the urban and community forest.

- A. All stakeholders, including decision-makers, professionals and activists, integrate their work.

SUGGESTED ACTIONS

- Bring together professionals and activists in training and networking events.
- In cooperation with all stakeholders, develop and promote a consistent set of standards and policies.
- Promote cooperation and understanding among stakeholders.

B. Urban and community forest programs and projects involve the "whole" community.

- Promote participatory approaches in all urban forestry projects.
- Provide forums for diverse stakeholders to network and learn from each other.
- Keep all stakeholders informed of opportunities through the Citizen Forester newsletter.

C. Local decision-makers (town leaders, councils, boards and commissions) include trees and forests in their decision-making.

- Provide training for engineers, planners, planning boards, zoning boards of appeals and landscape architects on urban and community forestry issues.
- Identify and publicize local initiatives that successfully integrate urban and community forestry into open space, community development and re-development plans.
- Provide grant incentives for communities that have integrated urban and community forestry into open space, community development and re-development plans.
- Encourage tree and forest "advocates" to participate in local boards.
- Empower tree wardens to effectively advocate for trees within local and state governments.

C.1. There are more local tree and forest boards, and these boards are more effective.

- Provide training and assistance to local tree boards and non-profit organizations on public relations strategies, communicating with public officials, participatory approaches, fund raising and organizational development.
- Reach out to all local tree boards and provide timely information.
- Require all Massachusetts Community Forestry Council members to make presentations at a local board meeting each year.

C.2. The public, especially local and state leaders, better understands urban and community forestry needs and benefits.

- Develop a marketing plan for urban and community forestry at the state level.
- Provide training and assistance to tree wardens, local tree boards and nonprofit organizations on effective advocacy and public relations.
- Prepare and distribute fact sheets on the benefits of trees and forests to local and state leaders.
- Quantify and publicize the economic values of urban and community trees and forests.
- Encourage tree wardens, local tree boards and non-profit organizations to communicate with their legislative representatives regarding urban and community forestry needs and issues.
- Identify and support more diverse public leaders to serve as spokespeople for urban and community forestry.
- Encourage more communities to become Tree City USA's.

C.3. New developments use "best management practices" to integrate trees into development plans.

- Widely distribute "best management practices" for preserving trees during construction.
- Compile and distribute sample ordinances for "best management practices" to preserve trees and require planting at new developments.
- Provide "best management practices" and sample ordinances to local planning boards.
- Reach out to developers and builders to increase their understanding of urban tree issues through site tours and industry publications.
- Publicly recognize developers who successfully integrate trees and green infrastructure.

D. Local boards, utilities, state agencies, land managers and others who protect and manage the urban and community forest operate with proper and consistent policies

and standards.

- In cooperation with all stakeholders, develop and promote a consistent set of standards and policies.

D.1. Policies of municipal, regional and state agencies support and preserve urban and community forests.

- Provide technical assistance to develop or improve local tree ordinances.
- Educate municipal leaders about Massachusetts General Law Chapter 87 (Public Shade trees) to encourage compliance.
- Publicly recognize agencies that implement progressive programs relating to urban and community forestry.
- Form constructive relationships with other state agencies and partners including Mass Highway, the Massachusetts Municipal Association, Metropolitan District Commission and others to further outreach and education.

D.2. All municipalities have urban forestry and arboricultural professionals managing their public trees.

- Recommend communities employ urban forestry professionals as tree wardens, and encourage under-qualified tree wardens to participate in training programs.
- Enforce Massachusetts General Laws regarding public trees requiring all municipalities to appoint or employ a qualified tree warden. Exclude non-complying communities from grant and award programs.

E. DEM's Urban and Community Forestry Program provides consistent technical assistance and follow-up to rural and urban communities.

- Provide ongoing technical assistance to all grant recipients.
- Reach out and engage more rural and inner-city communities in urban and community forestry activities.
- Establish grant-making policies that assist communities in achieving successful and sustained urban and community forestry programs.

F. Policies that protect trees and forests have greater effectiveness.

F.1. Public and private trees that are designated as "significant" have greater legal protection.

- Advocate for passage of the Significant Tree Protection Act.
- Compile and distribute sample ordinances for protecting significant trees locally.
- Design a Significant Tree Registry and work with new partners to identify and list candidate trees.

F.2. Massachusetts General Law Chapter 87 (Shade Tree Law) is improved.

- Evaluate the effectiveness of the Shade Tree Law, Scenic Roads Law and other laws affecting public trees.
- Work with legislators to update laws and require specific qualifications and training for tree wardens.

F.3. Residents and local leaders better understand state laws that govern public trees.

- Evaluate policies and standards for construction and engineering of roads, sidewalks, parking lots and utility right-of-ways to identify conflicts with urban and community forests and recommend changes.
- Develop and distribute a fact sheet detailing state laws affecting community forests and trees.
- Provide training and assistance to municipalities and local boards on state laws affecting trees.

II. All Urban and Community Forestry Programs are fully funded.

A. Dedicated public funding for urban and community forestry is increased and sustained.

A.1. Local budgets for urban and community forestry are increased and sustained.

- Encourage municipal collaboratives to increase buying power for urban and community forestry products and services.
- Encourage municipal collaboratives to market urban and community forest products including municipal wood waste and products from town-owned forestlands.
- Identify and promote successful partnerships and novel revenue sources for funding municipal urban and community forestry programs.
- Recognize communities that increase forestry budgets as a result of surveys, inventories, Tree City USA awards or other means.
- Ensure that communities have quality survey or inventory data so that they can effectively make the case for increased local funding.
- Assess and publicize the levels of local urban and community forestry funding around the state.
- Provide communities with sample warrant articles and testimony to prepare for town meeting votes on local tree budgets.
- Educate municipal leaders and local committees on the potential benefits from responsible town-owned forestland management, and encourage towns to invest proceeds from town forest management in local urban and community forestry programs.

A.2. The Commonwealth of Massachusetts contributes more funding to urban and community forestry programs.

- Involve legislators in tree-planting, special events and grant announcements.
- Provide training and assistance to local tree boards and non-profit organizations regarding the budget process.
- Advocate for an annual state appropriation for the Mass ReLeaf Fund.
- Develop mechanisms for individuals to contribute, such as a voluntary check off on tax returns or license plate sales.

B. Corporate and foundation support for urban and community forestry is increased.

- Provide training and assistance to local tree boards and non-profit organizations on fund raising.
- Develop relationships with philanthropy networks.
- Increase funeral home participation in the Mass Memorial Tree Program.
- Encourage more partnerships with utilities companies.
- Solicit corporate support for events, publications and special projects.
- Market the Mass ReLeaf fund to philanthropists.
- Become more active in environmental networks.

III. All residents and leaders understand and appreciate urban and community trees and forests.

A. Urban and community forestry has greater public visibility and recognition.

- Develop a marketing plan for urban and community forestry at the state level.
- Reach out to the media with urban forestry issues and news.

A.1. State agencies, communities, citizen groups and non-profit organizations are more skilled in public relations.

- Improve, link and promote Massachusetts based urban and community forestry web sites.
- Provide training and assistance to local tree boards and non-profit organizations on public relations strategies.
- Educate other state staff about the Urban and Community Forestry Program.
- Increase the effectiveness of DEM's Urban and Community Forestry Program as a clearinghouse for information, speakers, media and project ideas.
- Identify and support more individuals to serve as spokespeople for urban and community forestry.
- Develop and distribute a general press kit and timely news releases concerning urban and community forestry issues to local groups.
- Encourage more communities to become Tree City USA's by targeting non-participating communities for Arbor Day events.

A.2. The public, especially local and state leaders, better understand urban and community forestry needs and benefits.

- See suggested actions under result C.2 to increase understanding of urban forestry.
- Make presentations about urban forestry issues to the Joint Committee on Natural Resources and Agriculture and appropriate legislative leadership.

B. Youth and adults are educated about community trees and forestry.

B.1. There is an ongoing community tree and forest curriculum taught in schools.

- Provide technical assistance to organizations and agencies working toward this result.
- Assemble and distribute existing educational resources and curricula on teaching about community trees and forests in our schools.
- Include more educators and school contacts on the *Citizen Forester's* mailing list.
- Encourage local tree boards to promote the teaching of community tree and forest curricula in local schools.
- Increase participation in the Arbor Day Poster Contest.
- Facilitate Project Learning Tree workshops in target communities.
- Strengthen partnerships to more fully utilize the Treeture and its accompanying educational materials.
- Encourage DEM grantees to partner with local schools to implement urban forestry projects.
- Provide teacher re-certification credits for urban and community forestry training.
- Participate in the Massachusetts Envirothon annually and in the National Envirothon, when possible.
- Provide technical assistance to existing programs and partnerships with schools, such as the Boston Schoolyards Initiative.
- Encourage and support green industry business involvement in educational activities at local schools.
- Develop and distribute a publication on common trees in Massachusetts for teaching in local schools.

B.2. Citizens, professionals, non-profit organizations and town officials are trained as stewards of the urban and community forest.

- Develop and implement a "Master Community Forestry Steward" training program with Master Gardeners and other civic groups.
- Foster the creation of a community forestry steward program based on successful models in other states.
- Work with allied professional associations (such as those representing engineering, planning, public works and landscape architecture) to promote practices that enhance urban and community forestry.
- Reach out to the Massachusetts Municipal Association, public works association and others to offer basic training in urban forestry to municipal leadership.
- Encourage towns to hire or appoint certified arborists as tree wardens. Support current Tree Wardens wishing to earn arborist certification.
- Support the Massachusetts Tree Wardens' and Foresters' Association Professional Development Series.
- Create a network of resources and technical assistance for tree wardens who desire additional professional training.
- Serve as a resource to individuals and organizations on urban and community forestry stewardship issues.
- See results under D.2 to encourage professionalism in municipal urban forestry.

C. Urban and community forestry is more relevant to rural, inner city and under-served residents.

- Use grants and technical assistance to support projects that promote diversity in the green industries.
- Recognize and publicize projects that use community forestry resources for economic development.
- Support projects that meet rural and inner-city community needs.
- Actively reach out to rural and inner-city communities.
- Insure that publicity and informational materials are relevant to rural, minority and under-served populations.
- Conduct training for state and local partners on engaging diverse populations in urban and community forestry programs.

IV. Tree canopy cover is increased, improving ecosystem integrity.

A. Urban and community forests are protected and expanded.

- Demonstrate the role of the urban and community forest for ecosystem integrity to local leaders in Massachusetts' communities.
- Demonstrate model tools for forest protection, restoration and stewardship to Massachusetts' communities.
- Use grants and technical assistance to support local efforts to protect, restore and manage forests.

A.1. State and local governments adopt policies that support no net loss of tree canopy.

- Work with the legislature to assist communities in protecting local trees and forested areas during development, and to require new plantings in new parking lots.
- Compile and distribute sample ordinances for protecting local trees and forest areas.
- Advocate for sufficient compensation to communities where trees are destroyed for construction and development.
- Advocate for tree preservation and planting plans to be prepared for all new developments.

A.2. Public and private forested areas are well protected and managed for multiple benefits.

- Promote Massachusetts General Law Chapter 61 tax incentives and the Forest Stewardship Program.
- Use grants and technical assistance to support projects that manage town-owned forestlands in a sustainable manner.
- Conduct workshops on managing municipally owned forestlands.

A.3. Local policies and strategies result in less ecosystem fragmentation.

- See suggested actions under result C.3, implementing "best management practices".
- Identify and publicize model strategies to protect forests on a regional basis.
- Demonstrate the value and function of forests for water quality and quantity, air quality and wildlife to municipal and regional planning agencies.
- Support the efforts of communities who work to protect forests in Community Development Plans.
- Promote development strategies that have low impact on forest land, such as cluster development.

B. More trees are planted than removed.

- Compile and publicize different models of community planting programs.
- Use grants and technical assistance to support the development of sustained community planting programs.
- Enhance the Massachusetts Tree City USA standards by rewarding communities that plant more trees than they remove.

- Secure an annual state appropriation for Mass ReLeaf tree planting grants.
- Use survey and inventory results to communicate trends towards future losses of tree canopy.
- See suggested actions under result F. to promote policies to preserve trees during construction.

C. Communities and agencies use community trees and forests in addressing community development, water, soil, air and other ecosystem integrity issues.

- Use grants and technical assistance to support projects that use community trees and forests to address the above ecosystem integrity issues.
- Develop and distribute materials that communicate the role of community trees and forests in addressing the above ecosystem integrity issues.
- Network with watershed organizations, air quality advocates and community development corporations to better integrate actions.
- Make presentations at meetings and conferences that communicate the role of community trees and forests in addressing the above ecosystem integrity issues.

V. Urban and community trees and forests are well managed.

A. Communities begin to adopt ecosystem approaches for urban and community forestry management.

- Define the ecosystem approach and distribute recommendation for adopting this approach for urban and community forestry management.
- Present these definitions and recommendations at meetings and conferences.
- Use grants to support community efforts to adopt ecosystem approaches for urban and community forestry management.
- Enhance the Massachusetts Tree City USA standards by rewarding communities that adopt ecosystem management approaches.
- Feature ecosystem management efforts in newsletters and public relations materials.

A.1. Urban and community forestry management encourages species diversity.

- Develop and distribute fact sheets detailing a diverse list of site appropriate species.
- Consider species diversity in granting decisions and technical assistance.
- Communicate the value of biodiversity and ecosystem approaches to traditional green industry practitioners.
- Encourage the planting of native species where appropriate through Mass ReLeaf grants.

A.2. Local and regional assessments of urban and community forestry resources guide management decisions.

- Use grants and technical assistance to support resource assessment, especially projects involving communities working together on regional assessments.
- Identify and publicize model communities that manage urban forests based on a current assessment of their resources.
- Document and demonstrate the advantages of comprehensive management plans based on resource assessment.

A.3. Research informs management.

- Demonstrate the cost/benefit ratio of comprehensive management.
- Disseminate relevant research findings through professional associations and publications.
- Present current research at regional green industry conferences and meetings.
- Advocate for research relevant to Massachusetts' communities and encourage field studies in the state.

B. Urban and community trees are adequately maintained.

B.1. Funding for community tree maintenance is increased to protect public investment in tree resources.

- Use grants and technical assistance to support community tree surveys or inventories that enable communities to effectively advocate for adequate local funding.
- Use technical assistance to support community efforts to plan and budget for the maintenance of community trees.
- Use technical assistance to support community efforts to institute cyclical pruning regimes.
- Provide communities with sample warrant articles and testimony to present at town meetings considering local tree budgets.
- Advocate for state appropriation for tree maintenance grants to municipalities.

B.2. Resource assessments guide maintenance decisions.

- Use grants and technical assistance to support community efforts to develop and implement community forestry management plans.
- Distribute samples of management plans to tree boards, tree wardens and other municipal officials.
- Demonstrate cost effectiveness of regular maintenance.

B.3. Research informs maintenance.

- See suggested actions under result A.3. “Research informs management”.

Appendix A

Organizations represented at the Listening Sessions

ACRT	Management (DEM) Forest Health Program
American Chestnut Foundation	Massachusetts DEM Riverways Program
Amherst Shade Tree Committee	Massachusetts DEM Service Forestry Program
Arlington's 2000 by 2000	Massachusetts Executive Office
Arnold Arboretum	of Environmental Affairs; Watershed Initiative
Athol Bird and Nature Club	Massachusetts Family Forests Cooperative
Berkshire Botanical Garden	Massachusetts Forestry Association
Boston Greenspace Alliance	Massachusetts Nursery and
Boston Urban Resources Partnership	Landscape Association
Brookline Tree Planting Committee	Massachusetts Tree Wardens' and
Burncoat High School – Horticulture Department	Foresters' Association
Cambridge Tree Project	National Association of State Foresters
City of Fall River	Natural Resources Conservation Service
City of New Bedford	New England Forestry Foundation
City of Somerville – Growing Center	Newton Pride
City of Springfield – Forestry Department	North Shore Community College –
City of Worcester; Parks, Recreation	Urban Forestry Program
and Cemetery Department	Quinsigamond State Park
Congressman Jim McGovern's office	Regional Environmental Council
Eagle Eye Institute	Sheffield Land Trust
Earthworks	State Senator Andrea Nuciforo's office
Ecotarium	State Representative Jim Marzilli
Egremont Land Trust	Tatnuck Watershed Association
Elm Watch	Town of Concord
Emerald Necklace Conservancy	Town of Greenfield; Department of Public Works
Fall River Street Tree Planting Committee	Town of Hinsdale
Franklin Regional Council of Governments	Town of Rehoboth
Friends of Mittineague Park	University of Massachusetts (UMASS)
Garden Club Federation of Massachusetts	(UMASS) Amherst – Grounds Management
Harvard University	(UMASS) College of Food and Natural Resources
Land's Sake	(UMASS) Amherst – Department of Natural
Landscape by Earthcare	Resources and Conservation
Laughton's Nursery	(UMASS) Extension – Campus Career Network
Lowell Parks and Conservation Trust	USDA Forest Service – Northeastern Area
Massachusetts Arborists Association	USDA Forest Service – Northeastern Center
Massachusetts Audubon Society	for Urban and Community Forestry
Massachusetts Community Forestry Council (MCFC)	Wachusett Mountain Ski Area
Massachusetts Department of Environmental	

Appendix B

Resources and Contacts

American Forests
P.O. Box 2000
Washington, DC 20012
(202) 955-4500
www.americanforests.org

Arnold Arboretum
125 Arborway
Jamaica Plain, MA 02130
(617) 524-1718
www.arboretum.harvard.edu/main.htm

Berkshire Botanical Garden
PO Box 826
Stockbridge, MA 01262
(413) 298-3296

Executive Office of Environmental Affairs
251 Causeway St. Suite 900
Boston, MA 02114
(617) 626-1000
www.magnet.state.ma.us/envir

Greater Boston Urban Resources
Partnership Freedom House
14 Crawford St.
Roxbury, MA 02119
(617) 445-0378

International Society of Arboriculture
PO Box 3129
Champaign, IL 61826-3129
(217) 355-9516
www.isa-arbor.com

Massachusetts Association of Conservation Commissions
10 Juniper Rd.
Belmont, MA 02478
(617) 489-3930
www.maccweb.org

Massachusetts Community Forestry Council
240 Beaver Street
Waltham, MA 02452
(781) 891-7760
www.mcfc.org

Massachusetts Department of Environmental Management
Bureau of Forestry
251 Causeway St., Suite 600
Boston, MA 02114
(617) 626-1250
www.state.ma.us/dem

Massachusetts Forestry Association
PO Box 1096
Belchertown, MA 01007
(413) 323-7326

Massachusetts Horticultural Society
Elm Bank
900 Washington Street
Wellesley, MA 02482-5725
(781) 431-2183

www.massshort.org

Massachusetts Tree Wardens' and Foresters' Association
240 Beaver Street
Waltham, MA 02154
(781) 894-4759
mtwfa@mma.org

National Arbor Day Foundation
100 Arbor Avenue
Nebraska City, NE 68410
(402) 474-5655
www.arboday.org

Massachusetts Arborists Association
8D Pleasant St.
Natick, MA 01760
(508) 653-3320
www.maarbassn.org

National Tree Trust
1120 G Street, N.W. Suite 770
Washington, D.C. 20005
(202) 628-8733
www.nationaltreetrust.org

New England International Society of Arboriculture
PO Box 1856
Concord, NH 03302-1856
(978) 266-8990 or (603) 271-2214

Urban Forestry Diagnostics Lab
Holdsworth Natural Resources Center
University of Massachusetts
Amherst, MA 01003
(413) 545-3208

USDA Forest Service
PO Box 640 (271 Mast Rd.)
Durham, NH 03824
(603) 868-7688
www.na.fs.fed.us/

USDA Forest Service Northeast Center for Urban and
Community Forestry
Holdsworth Natural Resources Center
University of Massachusetts
Amherst, MA 01003
(413) 545-3755
www.umass.edu/urbantree

University of Massachusetts Extension Landscape, Nursery
and Urban Forestry Program
French Hall
230 Stockbridge Rd.
Amherst, MA 01003-2910
(413) 545-0895
www.umassgreeninfo.org

Worcester Horticultural Society
PO Box 598
Boylston, MA 01505-0598
(508) 869-6111
www.towerhillbg.org

Appendix C

What Can You Do?

1) Review this plan and identify what your organization, agency or group can do to grow urban and community forestry in Massachusetts.

2) Evaluate your community's urban and community forestry program using the descriptions below. These descriptions may be helpful for understanding where your community is now, and what you need to accomplish in order to achieve a "sustained" urban and community forestry program.

Is Your Community at the "Project" Level?

Are you just beginning to develop an urban and community forestry program? Is your community completing a single community forestry project such as a tree planting, a brochure or a tree maintenance project?

Is Your Community at the "Formative" Level?

Are you starting to grow your urban and community forestry program? Does your community have a tree board or forestry department in addition to a Tree Warden? Does your community have a tree ordinance or plan? Does your community annually spend at least \$2 per capita on tree and forestry related activities? Do you sponsor an Arbor Day or other public awareness event? Is your community designated a Tree City USA?

Is Your Community at the "Developmental" Level?

Do you have a strong, but not yet fully "Sustained" urban and community forestry program? Have you achieved the milestones described above, AND improved upon these with a community tree survey or inventory, a strategic management plan, an ongoing community planting program, training for forestry staff or tree board members or a community-wide public awareness program?

Is Your Community at the "Sustained" Level?

Have you achieved most of the milestones above, and built broad-based citizen support for urban and community forestry through citizen involvement and public awareness activities? Do you have a comprehensive urban forest management plan with long-term as well as annual goals and objectives? And do you actively fund and implement that plan on an annual basis?

3) Contact the Massachusetts Urban and Community Forestry Program to learn about grant and technical assistance opportunities that may help grow your community's urban and community forestry program.

Eric Seaborn, Acting Coordinator
DEM, 251 Causeway St., Suite 600, Boston, MA 02114
Phone 617-626-1468, Fax 617-626-1449

Jane Calvin, Community Action Forester, Eastern Mass, 617-626-1456

Paul Jahnige, Community Action Forester, Western and Central Mass, 413-577-2966

www.state.ma.us/dem/programs/forestry/urban/index.htm

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